

and the one or more splits includes a first split including a low pass filter for blocking signals in the high band of frequencies from passing to one of the branching paths.

REMARKS

This application is a continuation of Application 09/113,525, now issued as patent 6,192,399. The remarks below address rejections of claims in an office action mailed 2/16/2000 in that prior application. The claims as currently pending correspond to the claims as they were pending prior to the 2/16/2000 office action. These claims include independent claims 1, 43, and 48. Applicants have cancelled claims 23-26 and 48-50, which issued in the prior application.

The Examiner rejected claim 1 under 35 USC §103 over Bell (5,930,340) in view of Thompson (5,594,726). Two general aspects of these references should be noted. First, Bell addresses an approach to passing voice and data signals over a subscriber line, and particularly describes a device for voice signals and data signals passing over the subscriber line. Bell does not describe any particular arrangement or approach involving multiple subscriber lines. Thompson describes a system in which telephony communications (i.e., voice-band signals) are passed over a broadband cable distribution system. The telephone communications are modulated and demodulated at a customer premises and at a cable "headend." Multiple customer premises communicate with the headend over the same broadband communication network, each using a different modulation frequency. Therefore, Thompson does not describe any approach to combining voice signals and data signals on a twisted pair network. Rather, Thompson describes an alternative to passing voice and data over twisted pairs.

In view of the differences between the teachings of the two references, there would be no motivation to combine them. Bell teaches a device that is for coupling to a twisted pair subscriber line in order to separate voice and data. Thompson replaces subscriber lines with frequency modulation on a broadband network.

Even if Bell and Thompson were combined, they do not together include all the features recited in the claims. The Examiner relies on Bell to provide the "circuitry for combining telephone and data signals." However, as discussed above and as the Examiner appears to have recognized, Bell's circuitry is for coupling to only a single separate twisted pair wiring network.

Bell does not disclose a hub coupled to multiple separate twisted pair networks, and in particular does not teach or suggest that a hub have the recited "circuitry for inhibiting transmission of data" through a port to a twisted pair network other than that to which the addressed computer is coupled. Thompson does not provide the missing hub. The Examiner points out that Thompson has multiple demodulators, each of which is tuned to a different frequency for recovering telephone signals that have based over the broadband network. However, such demodulators cannot be construed to be a "hub" and certainly do not include the recited "circuitry for inhibiting transmission of data". Therefore, neither Bell nor Thompson teach or suggest using multiple separate twisted pair wiring networks coupled by circuitry that includes a hub with the characteristics recited in the claim.

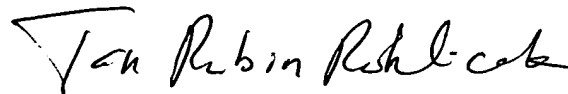
Regarding claim 43, the Examiner appears to have relied on Thompson to provide a twisted pair wiring network having multiple branching paths. However, Thompson teaches use of a broadband network, not a twisted pair wiring network. Therefore, even if Bell and Thompson were combined, they would not yield the recited features of the claim.

Attached is a marked-up version of the changes being made by the current amendment.

Applicant asks that all claims be examined. Enclosed is the Petition for Four Months Extension of Time and the required fee of \$695.. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 4/12/01



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Version with markings to show changes made

In the claims:

1. (Twice amended) A communication system for passing communication between a plurality of terminal devices, including telephones and computers, and a plurality of information services, including a telephone network and a data network, comprising:

a twisted pair wiring network coupled to the terminal devices including a plurality of separate twisted pair wiring networks, each separate twisted pair wiring network being for passing voice signals in a telephone voice frequency band between the telephone network and the one or more telephones [on each of] coupled to said separate twisted pair wiring network[s]; and

circuitry coupled to each of the separate twisted pair wiring networks for combining telephone and data signals including

a first data hub coupled to the data network and including a plurality of data ports each associated with a different one of the separate twisted pair wiring networks, wherein the first data hub includes circuitry for inhibiting transmission of data received from the data network and addressed to a computer coupled to one of the data ports from being transmitted on other of the data ports, and

for each of the data ports, circuitry coupled to the telephone network and to said data port, coupled to the separate twisted pair wiring network associated with said data port, and configured to combine on said separate twisted pair wiring network (a) telephone voice signals in the telephone voice frequency band passing between the telephone network and the one or more telephones on said separate network, and (b) high frequency signals in a high band of frequencies higher than those of the telephone voice frequency band passing information between said data port and one or more of the computers coupled to said separate twisted pair wiring network.

43. (Once amended) A communication system for passing voice and data communication between a plurality of terminal devices, including one or more telephones and

one or more computers, and a plurality of information services, including a telephone network and a data network, comprising:

a twisted pair wiring network coupled to the terminal devices for passing telephone voice signals in a telephone voice frequency band between the telephone network and the one or more of the telephones on said twisted pair wiring network; and

circuitry for combining telephone and data signals including a data interface coupled to the data network and including a data port for passing data to the twisted pair wiring network,

circuitry coupled to the telephone network and to said data interface, coupled to the twisted pair wiring network, and configured to combine on said twisted pair wiring network (a) telephone voice signals in the telephone voice frequency band passing between the telephone network and the one of the telephones on said twisted pair network, and (b) high frequency signals in a high band of frequencies higher than those of the telephone voice frequency band passing information between said data interface and one or more of the computers coupled to said twisted pair wiring network;

wherein the twisted pair wiring network[s] includes a plurality of cables forming branching paths, and one or more splits at which three or more of the branching paths are joined, and the one or more splits includes a first split including a low pass filter for blocking signals in the high band of frequencies from passing to one of the branching paths.